COVERAGE NAME : DLG_RDS

COVERAGE AREA: County

COVERAGE DESCRIPTION:

The 'DLG_RDS' layer is based on the USGS DLG transportation linework derived from the DLG-3 digital series. The library layer contains DLG linework as it came from USGS, plus edited and new linework. Edits included corrections of coding and additions, deletions and alterations of linework. This layer contains a second-generation arc attribute table derived from the DLG major/minor pair scheme. The derived table is fully described here. The original coding can be made available upon request. DLG coding is documented in "Digital Line Graphs From 1:100000-Scale Maps, Data Users Guide 2, 1985" available from the U.S. Department of the Interior, U.S. Geological Survey, Reston, Virginia.

The roads layer contains several classes of transportation features including jeep trails, city streets, thoroughfares, unpaved roads, state highways, and interstates. Some of the data is 20 years old; therefore, care should be taken when using data from areas that have grown in recent years. The currency of the State highway system (those for which Caltrans has responsibility) is very good, having been updated in 1993. The data can be very dense in highly urbanized counties. Los Angeles County has over 200,000 arcs.

These coverages were processed to the specifications of the Department of Transportation whose interest was in "legislative routes". This resulted in some peculiarities in attribute coding where legislative route names differ from the route's common name. For example, Sacramento's Business 80 is referred to as State Route 51 in legislative route parlance. Users searching for Business 80 will either not find it or will find Interstate 80 (a different roadway) instead. No attempt has been made to supply aliases for legislative route numbers, though the attribute file structure can accommodate them. Also, in areas where a highway has two names (1 & 101, 70 & 99) the arcs may have one name, or the other, or neither if the legislative route number differs from the more common name.

An item has been added to the arc attribute table to identify which 1:100,000 scale quad sheet they originated in, and to make them unique within the state. They range from 100,000,000 to 214,000,000. The first 3 digits refer to the id numbers assigned to each 100K quad starting with the northwest-most quad in the state and ending with the southeast-most quad. This scheme is mostly for Teale's use in updating, but users may find it of interest.

VITAL STATISTICS:

Datum:	NAD 83
Projection:	Albers
Units:	Meters
1st Std. Parallel:	34 00 00 (34.0 degrees N)
2nd Std. Parallel:	40 30 00 (40.5 degrees N)
Longitude of Origin:	-120 00 00 (120.0 degrees W)
Latitude of Origin:	00 00 00 (0.0 degrees)
False Easting (X shift):	0
False Northing (Y shift):	-4,000,000
Source:	USGS DLG
Source Media:	Magnetic tape - optional (80 byte) format
Source Projection:	Universal Transverse Mercator Zones 10 & 11
Source Units:	Meters
Source Scale:	1:100,000
Capture Method:	Original source maps were scanned to produce digital files
Conversion Software:	ARC/INFO rev. 5.0.1
Data Structure:	Vector
ARC/INFO Coverage Type:	Arc
ARC/INFO Precision:	Double
ARC/INFO Tolerances:	<10 meters
Number of Features:	1,335,605
Layer Size:	234.075 MB
Last Updated:	October 1993, .AAT updated February 1996

DATA DICTIONARY:

DATAFILE NAME: DLG_RDS.AAT
RECORD LENGTH: 60

NOTE: In the ROADSA.AAT file for Los Angeles County, the length item is defined as 4 12 F 3, giving the .AAT file a non-standard length of 56 bytes. For all other counties the file is defined as 8 18 F 5.

Non-standard LINE attribute fields:

COLUMN	ITEM NAME	WIDTH	OUTPUT	TYPE	N.DEC
33	DLG-ID	4	5	B	-
37	HDLG-ID	4	12	B	-
41	TYPE	2	5	B	-
43	ROUTE1	2	5	B	-
45	ROUTE2	2	5	B	-
47	ROUTE3	2	5	B	-
49	CLASS	2	2	B	-
51	STATUS	2	2	B	-
53	UPDINFO	4	7	F	2
59	TAG	2	2	I	-

NOTE: Items common to all LINE coverages: FNODE, TNODE, RPOLY#, LPOLY#, LENGTH, DLG_RDS# and DLG_RDS-ID are not described here.

DLG-ID: Originally used to hold DLG ID number; some arcs have been added and changed which has resulted in duplicate id numbers in this item.

HDLG-ID: Original DLG ID number + (nnn * 1,000,000) where nnn is the number of the 1:100000 scale quad in which the arc resides, numbered from 100 in the northwest of the state to 214 in the southeast.

TYPE: Refers to type of road:

100 Interstate Highway
200 US Highway
300 State Highway
500 Interchange
900 Other

ROUTE1-3: Route numbers of interstates, state routes, or US routes

ROUTE1: Legislative route number (see User Notes). May or may not correspond to the common route numbers seen on highway maps and road signs.

ROUTE2: Other route numbers which may apply to this arc

ROUTE3: Other route numbers which may apply to this arc

NOTE: The Caltrans project only involved updating the legislative routes. Consequently, ROUTE2 and ROUTE3 were not closely checked for accuracy.

CLASS: Refers to the USGS classsification of roads:

Class Value	Description
10	Class 1; Primary Route-undivided
11	Class 1; Primary Route-divided by centerline
12	Class 1; Primary Route-divided, lanes separated
13	Class 1; Primary Route-one way, other than divided highway
20	Class 2; Secondary Route-undivided
21	Class 2; Secondary Route-divided by centerline
22	Class 2; Secondary Route-divided, lanes separated
23	Class 2; Secondary Route-one way, other than divided highway
30	Class 3; Thoroughfares, County Roads-mostly paved
31	Class 3; Thoroughfares, County Roads-divided by centerline

32 Class 3; Thoroughfares, County Roads-divided, lanes separated

33 Class 3; Thoroughfares, County Roads-one way

40 Class 4; Residential Roads, unimproved, unpaved roads

43 Class 4; Residential Roads, unimproved, unpaved roads-one way

49 Class 4; Originally not coded; assumed to be class 4 based on neighboring arcs

50 Class 5; Other than four-wheel-drive vehicle; example - hiking trails

51 Class 5; Four wheel drive vehicle

59 Class 5; Originally not coded; assumed to be class 5 based on neighboring arcs

60 Interchanges: They have their own classification

70 Miscellaneous UGSG classifications

80 In service facility or rest area

90 Roads that were newly digitized or roads recoded as a highway by Caltrans

STATUS: A Caltrans designation:

1 - Constructed; (paved or unpaved)

2 - Adopted; Not yet constructed. Approved for construction

3 - Proposed; Not yet constructed. Construction is proposed

UPDINFO: Update information in the format mmyy.nn
Month and year of update (mmyy), followed by an agency code indicating the updater:

0 - has not been updated; data is from USGS (mmyy)

01 - updated by Caltrans (mmyy.01)

02 - updated by Teale Data Center -- GIS Lab (mmyy.02)

Examples: 1290.02 - Updated in December of 1990 by Caltrans staff
1093.01 - Updated in October of 1993 by Teale staff

HWYRAMP: Flag for highways and ramps:

0 - other than a highway or a ramp
1 - highway or ramP

TAG: Used to flag tile boundaries.

ADDITIONAL PROCESSING NOTES:

The roads layer originated from US Geological Survey Digital Line Graph (DLG) 1:100,000 scale quadrangle series. Since 32 DLG files (which cover 7 and half minutes of latitude) make up the area represented on a 1:100,000 scale map, 32 separate coverages were generated. All of these coverages were then appended into one coverage. Roads that crossed the'neat lines' were not matched or connected. In order to join these roads together, an edgematching program was run on these quads, with a snapping tolerance of 20 meters. A final check was conducted interactively for roads exceeding the tolerance, and were snapped accordingly. Each 100K road coverage was appended with the adjoining 100K road coverage, and edgematched. The coverages were then converted from single precision to double precision. This procedure minimized movement of arcs. The projection was also changed from the Universal Transverse Mercator to Albers. The coverages were then clipped with the county boundary, with a tolerance of .001 meters.

All major highways were updated in 1993 through a joint project with Caltrans. There were various types of updates, such as recoding former thoroughfares as highways, or vice versa. We also added newly constructed highways and realignments. These roads were digitized at 1:24,000 scale. All post 1994 updates may by found by selecting the item "updinfo" not equal to zero. To find digitized roads, select for class equal to 90.

The attribute Route1 contains the 'legislative' route number. Route2 and Route3 may or may not contain the other route number assigned to that route. Due to inconsistency of classifications found among USGS 1:100,000 scale quads, some infrequently occuring classifications were not preserved in the attributes in the library, but can be retrieve through related files.

DATA QUALITY ASSESSMENT:

This layer is only as complete as USGS 1:100,000 quad maps, some of which date back to the mid 1970s. Recent areas of growth are not included; however, the information the layer does have is quite detailed and includes even jeep trails. The attribute coverage is fairly complete with 5 types and 22 classes of roads; however, not all classifications occur in each county, and classification of secondary roads can be somewhat inconsistent between 100k quads.